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SEQUENCE LISTING

<110> Paszty, Christopher
Gao, Yongming

<120> Cystine Knot Polypeptides: Cloaked-2 Molecules and Uses Thereof

<130> 01017/37428A

<140> US 10/679,670

<141> 2003-10-06

<150> US 60/208,550

<151> 2000-06-01

<150> US 60/223,542

<151> 2000-08-04

<160> 25

<170> PatentIn version 3.0

<210> 1

<211> 759

<212> DNA

<213> Homo sapiens

<400> 1

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gagctggaga acaacaagac catgaaccgg gcggagaacg gagggcggcc tcaccacacc 240
ccctttgaga ccaaagacgt gtccgagtagc agctgccgcg agctgcactt cacccgctac 300
gtgaccgatg ggccgtgccc cagcgccaag ccggtcaccg agctggtgtg ctccggccag 360
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cgccctcaccc gttccacaa ccagtcggag ctcaaggact tcgggaccga ggccgctcgg 600
ccgcagaagg gccggaagcc gcggccccgc gcccggagcg ccaaagccaa ccaggccgag 660
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<210> 2

<211> 190

<212> PRT

<213> Homo sapiens

<400> 2

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1 5 10 15

Leu Gly Glu Tyr Pro Glu Pro Pro Glu Leu Glu Asn Asn Lys Thr
20 25 30

Met Asn Arg Ala Glu Asn Gly Gly Arg Pro Pro His His Pro Phe Glu
35 40 45

Thr Lys Asp Val Ser Glu Tyr Ser Cys Arg Glu Leu His Phe Thr Arg
50 55 60

Tyr Val Thr Asp Gly Pro Cys Arg Ser Ala Lys Pro Val Thr Glu Leu
65 70 75 80

Val Cys Ser Gly Gln Cys Gly Pro Ala Arg Leu Leu Pro Asn Ala Ile
85 90 95

Gly Arg Gly Lys Trp Trp Arg Pro Ser Gly Pro Asp Phe Arg Cys Ile
100 105 110

Pro Asp Arg Tyr Arg Ala Gln Arg Val Gln Leu Leu Cys Pro Gly Gly
115 120 125

Glu Ala Pro Arg Ala Arg Lys Val Arg Leu Val Ala Ser Cys Lys Cys
130 135 140

Lys Arg Leu Thr Arg Phe His Asn Gln Ser Glu Leu Lys Asp Phe Gly
145 150 155 160

Thr Glu Ala Ala Arg Pro Gln Lys Gly Arg Lys Pro Arg Pro Arg Ala
165 170 175

Arg Ser Ala Lys Ala Asn Gln Ala Glu Leu Glu Asn Ala Tyr
180 185 190

<210> 3
<211> 636
<212> DNA
<213> Mus musculus

<400> 3

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gtggagggcc aggggtggca agccttcagg aatgatgcca cagaggtcat cccagggctt 120
ggagagtaacc ccgagcctcc tcctgagaac aaccagacca tgaaccgggc ggagaatgga 180
ggcagacctc cccaccatcc ctatgacgcc aaagatgtgt ccgagtacag ctgccgcgag 240
ctgcactaca cccgcttcct gacagacggc ccatgcccga gcgccaagcc ggtcaccgag 300
ttggtgtgtc cccggccagtg cggccccgca cggctgctgc ccaacgccc cggcgccgtg 360
aagtggtggc gcccgaacgg accggatttc cgctgcatcc cggatcgcta ccgcgcgcag 420
cgggtgcagc tgctgtgccc cggggcgccg cgcgcgcgtc cgcgcgaaggc gcgtctggtg 480

gcctcggtgca agtgcaagcg cctcaccgc ttccacaacc agtcggagct caaggactc 540
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aaagccaacc aggccggagct ggagaacgcc tactag 636

<210> 4
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Leu Gly Glu Tyr Pro Glu Pro Pro Glu Asn Asn Gln Thr Met Asn
20 25 30

Arg Ala Glu Asn Gly Gly Arg Pro Pro His His Pro Tyr Asp Ala Lys
35 40 45

Asp Val Ser Glu Tyr Ser Cys Arg Glu Leu His Tyr Thr Arg Phe Leu
50 55 60

Thr Asp Gly Pro Cys Arg Ser Ala Lys Pro Val Thr Glu Leu Val Cys
65 70 75 80

Ser Gly Gln Cys Gly Pro Ala Arg Leu Leu Pro Asn Ala Ile Gly Arg
85 90 95

Val Lys Trp Trp Arg Pro Asn Gly Pro Asp Phe Arg Cys Ile Pro Asp
100 105 110

Arg Tyr Arg Ala Gln Arg Val Gln Leu Leu Cys Pro Gly Gly Ala Ala
115 120 125

Pro Arg Ser Arg Lys Val Arg Leu Val Ala Ser Cys Lys Cys Lys Arg
130 135 140

Leu Thr Arg Phe His Asn Gln Ser Glu Leu Lys Asp Phe Gly Pro Glu
145 150 155 160

Thr Ala Arg Pro Gln Lys Gly Arg Lys Pro Arg Pro Gly Ala Lys Ala
165 170 175

Asn Gln Ala Glu Leu Glu Asn Ala Tyr
180 185

<210> 5
<211> 213
<212> PRT
<213> Homo sapiens

<400> 5

Met Gln Leu Pro Leu Ala Leu Cys Leu Val Cys Leu Leu Val His Thr
1 5 10 15

Ala Phe Arg Val Val Glu Gly Gln Gly Trp Gln Ala Phe Lys Asn Asp
20 25 30

Ala Thr Glu Ile Ile Pro Glu Leu Gly Glu Tyr Pro Glu Pro Pro Pro
35 40 45

Glu Leu Glu Asn Asn Lys Thr Met Asn Arg Ala Glu Asn Gly Gly Arg
50 55 60

Pro Pro His His Pro Phe Glu Thr Lys Asp Val Ser Glu Tyr Ser Cys
65 70 75 80

Arg Glu Leu His Phe Thr Arg Tyr Val Thr Asp Gly Pro Cys Arg Ser
85 90 95

Ala Lys Pro Val Thr Glu Leu Val Cys Ser Gly Gln Cys Gly Pro Ala
100 105 110

Arg Leu Leu Pro Asn Ala Ile Gly Arg Gly Lys Trp Trp Arg Pro Ser
115 120 125

Gly Pro Asp Phe Arg Cys Ile Pro Asp Arg Tyr Arg Ala Gln Arg Val
130 135 140

Gln Leu Leu Cys Pro Gly Gly Glu Ala Pro Arg Ala Arg Lys Val Arg
145 150 155 160

Leu Val Ala Ser Cys Lys Cys Lys Arg Leu Thr Arg Phe His Asn Gln
165 170 175

Ser Glu Leu Lys Asp Phe Gly Thr Glu Ala Ala Arg Pro Gln Lys Gly
180 185 190

Arg Lys Pro Arg Pro Arg Ala Arg Ser Ala Lys Ala Asn Gln Ala Glu
195 200 205

Leu Glu Asn Ala Tyr
210

<210> 6
<211> 208
<212> PRT
<213> Mus musculus

<400> 6

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20 25 30

Ala Thr Glu Val Ile Pro Gly Leu Gly Glu Tyr Pro Glu Pro Pro Pro
35 40 45

Glu Asn Asn Gln Thr Met Asn Arg Ala Glu Asn Gly Gly Arg Pro Pro
50 55 60

His His Pro Tyr Asp Ala Lys Asp Val Ser Glu Tyr Ser Cys Arg Glu
65 70 75 80

Leu His Tyr Thr Arg Phe Leu Thr Asp Gly Pro Cys Arg Ser Ala Lys
85 90 95

Pro Val Thr Glu Leu Val Cys Ser Gly Gln Cys Gly Pro Ala Arg Leu

	100	105	110
Leu Pro Asn Ala Ile Gly Arg Val Lys Trp Trp Arg Pro Asn Gly Pro			
115	120	125	
Asp Phe Arg Cys Ile Pro Asp Arg Tyr Arg Ala Gln Arg Val Gln Leu			
130	135	140	
Leu Cys Pro Gly Gly Ala Ala Pro Arg Ser Arg Lys Val Arg Leu Val			
145	150	155	160
Ala Ser Cys Lys Cys Lys Arg Leu Thr Arg Phe His Asn Gln Ser Glu			
165	170	175	
Leu Lys Asp Phe Gly Pro Glu Thr Ala Arg Pro Gln Lys Gly Arg Lys			
180	185	190	
Pro Arg Pro Gly Ala Lys Ala Asn Gln Ala Glu Leu Glu Asn Ala Tyr			
195	200	205	

<210> 7
<211> 24
<212> DNA
<213> Artificial

<220>
<223> PCR primer

<400> 7

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24

<210> 8
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 8

aaaccacgacg cagaggacag aaatgt

26

<210> 9
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 9

gccagggtg gcaaggcttc aagaatgt

29

<210> 10
<211> 24
<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 10

cgatccggga tgcagcggaa gtcg

24

<210> 11

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 11

ccatcctaat acgactcact atagggc

27

<210> 12

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 12

tgtcaggaag cgggtgtagt gcag

24

<210> 13

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 13

actcactata gggctcgagc ggc

23

<210> 14

<211> 25

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 14

ggacacatct ttggcgatcat aggga

25

<210> 15

<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 15

tacacccgct tcctgacaga c

21

<210> 16
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 16

ccatccta at acgactcact ataggc

27

<210> 17
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<220>
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<400> 17

ggtcaccgag ttgggtgtgct c

21

<210> 18
<211> 23
<212> DNA
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<220>
<223> PCR primer

<400> 18

actcactata gggctcgagc ggc

23

<210> 19
<211> 45
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 19

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45

<210> 20
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<212> DNA
<213> Artificial sequence

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<223> PCR primer

<400> 20

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41

<210> 21
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 21

tgtgtctcggt ctgcctgctg gtacaca

27

<210> 22
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> PCR primer

<400> 22

gaagtccgggc ccactaggc gcc

23

<210> 23
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> HIV TAT peptide

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Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
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<210> 24
<211> 15
<212> PRT
<213> Artificial sequence

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<223> FITC conjugated - HIV TAT peptide construct

<400> 24

Gly Gly Gly Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
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<210> 25

<211> 183

<212> PRT

<213> Homo sapiens

<400> 25

Phe Lys Asn Asp Ala Thr Glu Ile Leu Tyr Ser His Val Val Lys Pro
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Val Pro Ala His Pro Ser Ser Asn Ser Thr Leu Asn Gln Ala Arg Asn
20 25 30

Gly Gly Arg His Phe Ser Asn Thr Gly Leu Asp Arg Asn Thr Arg Val
35 40 45

Gln Val Gly Cys Arg Glu Leu Arg Ser Thr Lys Tyr Ile Ser Asp Gly
50 55 60

Gln Cys Thr Ser Ile Ser Pro Leu Lys Glu Leu Val Cys Ala Gly Glu
65 70 75 80

Cys Leu Pro Leu Pro Val Leu Pro Asn Trp Ile Gly Gly Gly Tyr Gly
85 90 95

Thr Lys Tyr Trp Ser Arg Arg Ser Ser Gln Glu Trp Arg Cys Val Asn
100 105 110

Asp Lys Thr Arg Thr Gln Arg Ile Gln Leu Gln Cys Gln Asp Gly Ser
115 120 125

Thr Arg Thr Tyr Lys Ile Thr Val Val Thr Ala Cys Lys Cys Lys Arg
130 135 140

Tyr Thr Arg Gln His Asn Glu Ser Ser His Asn Phe Glu Ser Met Ser
145 150 155 160

Pro Ala Lys Pro Val Gln His His Arg Glu Arg Lys Arg Ala Ser Lys
165 170 175

Ser Ser Lys His Ser Met Ser
180